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| APPLICATION NO.                        | FILING DATE | FIRST NAMED INVENTOR        | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|-----------------------------|---------------------|------------------|
| 10/709,019                             | 04/07/2004  | Nam T. Chao                 | 101896-0245         | 3018             |
| 21125                                  | 7590        | 02/23/2007                  | EXAMINER            |                  |
|  |             | NUTTER MCCLENNEN & FISH LLP | REIMERS, ANNETTE R  |                  |
|  |             | WORLD TRADE CENTER WEST     |                     |                  |
|  |             | 155 SEAPORT BOULEVARD       | ART UNIT            | PAPER NUMBER     |
|  |             | BOSTON, MA 02210-2604       | 3733                |                  |
| SHORTENED STATUTORY PERIOD OF RESPONSE |             | MAIL DATE                   | DELIVERY MODE       |                  |
| 3 MONTHS                               |             | 02/23/2007                  | PAPER               |                  |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

|                              |                    |              |
|------------------------------|--------------------|--------------|
| <b>Office Action Summary</b> | Application No.    | Applicant(s) |
|                              | 10/709,019         | CHAO ET AL.  |
|                              | Examiner           | Art Unit     |
|                              | Annette R. Reimers | 3733         |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 02 February 2007.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-37 and 39 is/are pending in the application.
- 4a) Of the above claim(s) 7, 14, 30 and 35 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-6, 8-11, 13, 15-29, 31-34, 36, 37 and 39 is/are rejected.
- 7) Claim(s) 12 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 07 April 2004 and 20 December 2005 is/are: a) accepted or b) objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 11/8/06.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_.

**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 02, 2007 has been entered.

***Allowable Subject Matter***

The indicated allowability of claim 11 is withdrawn.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 8-11, 13, 15-29, 31-34, 36-37 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taylor et al. (FR 2,816,195), cited by applicant.

Taylor et al. disclose an implantable spinal cross-connector, 1, comprising a central portion, wherein at least one connector member is formed on the terminal end thereof, the at least one connector member, 2, having first and second opposed jaws,

25, adapted to seat a spinal rod therebetween, wherein at least one of the jaws is selectively movable between a first, open position wherein the first and second jaws are positioned a distance apart from one another and a second closed position wherein the first and second jaws are adapted to engage a spinal fixation element therebetween, and at least one of the jaws is capable of being unitary with the central portion and a locking mechanism, 3, having a shank that is receivable within a non-expandable bore, formed in the connector member, the locking mechanism being adapted to come into contact with each of the first and second jaws to selectively lock at least one of the first and second jaws in a fixed position (see figure 1)

The locking mechanism includes a non-eccentric head, 3a, formed on a proximal end of the shaft and a threaded portion that is effective to mate with the threaded portion of the bore formed in the second jaw (see figure 1). The non-expandable bore formed in the at least one connector member includes an enlarged proximal opening that is adapted to seat a non-eccentric head of the locking mechanism, wherein the non-expandable bore includes a non-threaded portion, 27, formed in the first jaw and a threaded portion, 28, formed in the second jaw, and wherein the shank of the locking mechanism includes a non-threaded proximal portion that is adapted to sit within the non-threaded portion of the non-expandable bore formed in the first jaw and a threaded distal portion that is effective to mate with the threaded portion of the non-expandable bore formed in the second jaw (see figure 1). The second jaw on the at least one connector member is pivotally mated to the first jaw, and wherein the non-eccentric head of the locking mechanism is effective to move the second jaw from the open

position to the closed position when the head is disposed within the enlarged proximal opening of the non-expandable bore (see figure 1). In addition, the locking mechanism is adapted to pull the first and second jaws toward one another into the second closed position when the locking mechanism is advanced into the non-expandable bore (see figure 1). The first and second jaws define a substantially C-shaped recess therebetween (see figure 1). The first and second jaws include a slot, 21b, found therebetween and adapted to allow movement of the first and second jaws between the first open position and the second closed position (see figure 1).

The central portion comprises a substantially elongate member having an adjustable length (see figure 1). The substantially elongate member is formed from first and second transverse members, 6 and 5, that are slidably matable to one another (see figure 1). The first transverse member, 6, includes a female mating element and the second transverse member, 5, includes a male mating element that is adapted to be received by the female mating element (see figure 1). A central locking mechanism, 13, for locking the first and second transverse members at a fixed position with respect to one another. In addition, the first and second transverse members are angularly adjustable with respect to one another along the longitudinal axis of the spinal cross-connector and are capable of being positioned at an angle of about 20° with respect to the longitudinal axis of the spinal cross-connector (see figure 1).

The central portion includes first and second transverse members that are connected to one another by a central clamp, 12, that allows angular adjustment of the first and second transverse members with respect to one another along a longitudinal

axis of the spinal cross-connector (see figure 1). In addition, the central locking mechanism is formed in the central clamp for locking the first and second transverse members in a fixed position with respect to one another (see figure 1).

The central locking mechanism extends through the central clamp and each of the first and second transverse members is adapted to engage and close the central clamp, thereby locking the first and second transverse members therebetween (see figure 1). The at least one connector member includes a bend zone, 21b, formed between the connector member and the central portion to allow angular movement of the connector member with respect to the central portion (see figure 1).

Regarding claim 33, Taylor et al. disclose the claimed invention except for the clamping surface of the jaw members comprising a series of ridges device. It would have been an obvious matter of design choice to one skilled in the art at the time the invention was made to construct the device of Taylor et al. with the clamping surface of the jaw members comprising a series of ridges device, since applicant has not disclosed that the clamping surface of the jaw members comprising a series of ridges solves any stated problem or is anything more than one of numerous shapes or configurations a person ordinary skill in the art would find obvious for the purpose of providing a more secure form of screwing an object into a hole and for clamping an object. *In re Dailey and Eilers*, 149 USPQ 47 (1966). In addition, it appears that the invention would perform equally well with the clamping surface of the jaw members not comprising a series of ridges device.

Taylor et al. disclose the claimed invention except at least one jaw being unitary with the central portion. It is noted that the Taylor et al. device comprises several parts, i.e. a jaw and a central portion, which are rigidly secured together as a single unit, via the locking mechanism, 3 (see figure 1). Therefore, the constituent parts are so combined as to constitute a unitary whole or structure. *In re Larson*, 144 USPQ 347 (CCPA 1965). Furthermore, permanently affixing, e.g. via molding, jaw 2 to the central portion would not destroy the function of the opposing members of the jaw or the effect that the locking mechanism, 3, would have on the opposing members of the jaw or the slot.

With regard to the statement of intended use and other functional statements, they do not impose any structural limitations on the claims distinguishable over Taylor et al., which is capable of being used as claimed if one so desires to do so. *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). Furthermore, the manner in which a device is intended to be employed does not differentiate the claimed apparatus from prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

#### ***Allowable Subject Matter***

Claim 12 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

As stated above, regarding applicant's remarks, with regard to at least one jaw and the central portion being a unitary structure, it is noted that the Taylor et al. device comprises several parts, i.e. a jaw and a central portion, which are rigidly secured together as a single unit, via the locking mechanism, 3 (see figure 1). Therefore, the constituent parts are so combined as to constitute a unitary whole or structure. In re Larson, 144 USPQ 347 (CCPA 1965). Furthermore, permanently affixing, e.g. via molding, jaw 2 to the central portion would not destroy the function of the opposing members of the jaw or the effect that the locking mechanism, 3, would have on the opposing members of the jaw or the slot.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Annette R. Reimers whose telephone number is (571) 272-7135. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eduardo Robert can be reached on (571) 272-4719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AR



EDUARDO C. ROBERT  
SUPERVISORY PATENT EXAMINER